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Serial No. 10/594,071 Docket No. SH-0068PCTUS **RYU.033** 

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## REMARKS

Claims 1, 3-10, and 12-22 are pending in this Application. Applicant has amended various claims to define the claimed invention more particularly. Applicant has added new claims 20-22 to claim additional features of the invention and to provide varied protection for the invention. Non-elected claims 5-10, 13, and 14 are withdrawn. No new matter is added.

Claims 15-18 stand rejected under 35 U.S.C. § 112, second paragraph.

Claims 1, 3, 4, 12, 15, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Pub. No. 2004/0129027 ("Sugiyama") in view of U.S. Patent No. 7,215,857 ("Mileo"). Claims 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sugiyama and Mileo, in further view of Japanese Patent Application Pub. No. 2000-143268 ("Shimizu"). Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sugiyama and Mileo, in further view of European Patent No. 0 623 563 ("Lysson").

Applicant respectfully traverses these rejections in the following discussion.

#### I. THE CLAIMED INVENTION

The claimed invention (e.g., as defined by exemplary claim 1) is directed to a processing method of processing a glass base material for an optical fiber using a processing apparatus.

The processing apparatus includes a pair of rotatable chucks configured to directly or indirectly grasp respective ends of the glass base material in an axial direction of the glass base material and that are to perform relative displacement in an opposing direction, a burner for heating the glass base material that is movable along the axial direction of the glass base material being grasped, and at least one midway holding device configured to hold or support, by an adjustably supplied pressure, at least one midway part of the glass base material via a spring or an air cylinder.

The processing method includes processing the glass base material while preventing the glass base material from being brought into a cantilever state by always holding or supporting the glass base material at two or more points, and moving the at least one midway holding device aside to a vicinity of at least one rotatable chuck in an elongation

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process and not during a first phase of heating of the elongation process so as not to hold or support the at least one midway part. A driving source of the moving includes an air cylinder.

With the claimed invention, it becomes possible to swiftly move the midway holding part to an arbitrary position of the glass base material for holding the glass base material, with a simple structure. In addition, in processes such as flame polishing, the midway holding part is able to be escaped to the chuck side (e.g., see Application at page 6, lines 10-15).

### П. THE 35 U.S.C. 112, SECOND PARAGRAPH REJECTION

In rejecting claims 15-18, the Examiner alleges that the claims are indefinite for failing to particularly point out the invention.

Although Applicant respectfully disagrees with the Examiner, in an effort to expedite prosecution, Applicant has amended these claims in a manner believed fully responsive to all points raised by the Examiner.

Further, Applicant submits that support for the amendments to claims 15-18 can be found at least on page 12, line 13 - page. 13, line 6 of the Application.

Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw this rejection.

#### III. THE PRIOR ART REJECTIONS

In rejecting claims 1, 3, 4, 12, 15, and 19, the Examiner alleges that one of ordinary skill in the art would have combined Sugiyama with Mileo to render obvious the claimed invention.

Applicant respectfully submits that the references would not have been combined as alleged by the Examiner and that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, Sugiyama and Mileo, either alone or in combination (arguendo), fail to teach or suggest, "at least one midway holding device configured to hold or support, by an adjustably supplied pressure, at least one midway part of the glass base material via a spring or an air cylinder...

moving the at least one midway holding device aside to a vicinity of at least one

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rotatable chuck in an elongation process and not during a first phase of heating of the elongation process so as not to hold or support the at least one midway part, a driving source of said moving comprising an air cylinder," (emphasis added by Applicant) as recited in claim 1.

Applicant submits that support for the amendments to claim 1 can be found at least on page 8, lines 30-32 and page 9, lines 6-8 of the Application.

The Examiner attempts to analogize the supporting unit 18 of Sugiyama to the claimed midway holding device.

Sugiyama merely discloses that "[t]he supporting unit 18 is attached so that its disposed position may be adjustable by sliding in the longitudinal direction of the base board 13" (see Sugiyama at paragraph [0028]). Sugiyama, however, fails to teach or suggest that at least one midway holding device configured to hold or support, by an adjustably supplied pressure, at least one midway part of the glass base material via a spring or an air cylinder. and that a driving source of moving the at least one midway holding device aside to a vicinity of at least one rotatable chuck in an elongation process includes an air cylinder, as recited in claim 1. Thus, Sugiyama fails to teach or suggest the above features of claim 1.

Moreover, Applicant submits that Mileo fails to make up the deficiencies of Sugiyama.

Clearly, these novel features are not taught or suggested by Mileo.

Indeed, Mileo simply teaches elongating an optical fiber preform (Mileo at Abstract).

Mileo, however, fails to teach or suggest that at least one midway holding device configured to hold or support, by an adjustably supplied pressure, at least one midway part of the glass base material via a spring or an air cylinder, and that a driving source of moving the at least one midway holding device aside to a vicinity of at least one rotatable chuck in an elongation process includes an air cylinder, as recited in claim 1. Thus, Sugiyama fails to teach or suggest the above features of claim 1.

Since Mileo does not overcome the deficiencies of Sugiyama, the combination of references fails to render the rejected claims obvious.

With the claimed invention, it becomes possible to swiftly move the midway holding part to an arbitrary position of the glass base material for holding the glass base material, with a simple structure. In addition, in processes such as flame polishing, the midway holding part

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is able to be escaped to the chuck side (e.g., see Application at page 6, lines 10-15).

Moreover, Applicant respectfully submits that these references are unrelated and would not have been combined as alleged by the Examiner. Thus, a person of ordinary skill in the art would not have considered combining these disparate references, absent impermissible hindsight.

Further, Applicant submits that there is no motivation or suggestion in the references or elsewhere (and thus no predictability for one of ordinary skill in the art) to urge the combination as alleged by the Examiner. Indeed, these references clearly do not teach or suggest their combination. Therefore, Applicant respectfully submits that one of ordinary skill in the art would not have combined the references as alleged by the Examiner.

Therefore, Applicant respectfully submits that one with ordinary skill in the art would not have combined Sugiyama with the teachings of Mileo, and even if combined, the alleged combination would not have taught or suggested (or rendered obvious) each and every feature of the claimed invention. Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw this rejection.

Moreover, in rejecting claims 16 and 17, the Examiner alleges that one of ordinary skill in the art would have combined Sugiyama and Mileo with the teachings of Shimizu to render obvious the claimed invention.

Applicant respectfully submits, however, that the references would not have been combined as alleged by the Examiner and that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

Applicant respectfully traverses this rejection, at least because Shimizu is not cited as remedying the aforementioned deficiencies of Sugiyama and Mileo.

Indeed, Shimizu is merely cited for allegedly disclosing a spindle shaping process. Thus, claims 16 and 17 are allowable for at least the same reasons that the underlying base claim is allowable.

Furthermore, in rejecting claim 18, the Examiner alleges that one of ordinary skill in the art would have combined Sugiyama and Mileo with the teachings of Lysson to render obvious the claimed invention.

Applicant respectfully submits, however, that the references would not have been combined as alleged by the Examiner and that, even if combined, the alleged combination of

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references would not teach or suggest each and every feature of the claimed invention.

Applicant respectfully traverses this rejection, at least because Lysson is not cited as remedying the aforementioned deficiencies of Sugiyama and Mileo.

Indeed, Lysson is merely cited for allegedly disclosing heating a glass rod. Thus, claim 18 is allowable for at least the same reasons that the underlying base claim is allowable.

#### IV. **NEW CLAIMS**

New claims 20-22 have been added to claim additional features of the invention and to provide more varied protection for the claimed invention. No new matter has been added. The claims are independently patentable because of the novel features recited therein.

Applicant submits that new claims 20-22 are patentable at least because of similar reasons to those set forth above with respect to claims 1, 3, 4, 12, and 15-19.

Furthermore, Applicant submits that new claims 20-22 are directed to the invention of Group I, which was elected in the Response filed on September 9, 2009.

#### V. FORMAL MATTERS AND CONCLUSION

The Examiner is requested to acknowledge receipt of the priority document.

In view of the foregoing, Applicants submit that claims 1, 3, 4, 12, and 15-22, all the claims presently under examination, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

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The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Date: 1/31/12

Respectfully Submitted,

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# **FACSIMILE TRANSMISSION**

I hereby certify that I am filing this paper via facsimile, to Group Art Unit 1741, at (571) 273-8300, on the date shown below.

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